

HIV Helper T-cell Epitopes

Table 5: Pol

Location	WEAU	Sequence	Immunojen	Species(HLA)	References
RT(36-52 BRU)	RT(191-207)	EICTEMEKEGKISKIG- P	HIV infection	human(unk)	[De Groot (1991)]
		• 9 out of 17 humans can make strong IL2 responses to this epitope			
RT(38-52 BRU)	RT(193-207)	CTEMEKEGKISKIGP	RT	murine(H-2 ^k)	[De Groot (1991)]
		• T-cells from RT immunized mice have enhanced proliferative response with peptide			
RT(194-208)	RT(194-208)	TEMEKEGKISKIGPE	Protein priming <i>in vitro</i>	human(unk)	[Manca (1995a)]
		• Protein priming induced T-cells that recognize peptide, 4 clones from a single donor recognized this peptide			
RT(48-62 BRU)	RT(203-217)	SKIGPENPYNTPVFA	RT	murine(H-2 ^k)	[De Groot (1991)]
		• T-cells from RT immunized mice have enhanced proliferative response with peptide			
Pro(62-77 BRU)	RT(217-232)	AIKKKDSTKWRKLVDF	RT	murine(H-2 ^k)	[De Groot (1991)]
		• T-cells from RT immunized mice have enhanced proliferative response with peptide			
Pro(88-102 BRU)	RT(243-257)	WEVQLGIPHPAGLIKK	RT	murine(H-2 ^{I₄})	[De Groot (1991)]
		• T-cells from RT immunized mice have enhanced proliferative response with peptide			
Pro(133-147 BRU)	RT(288-302)	PSINNETPGIRYQYN	RT	murine(H-2 ^{k,15})	[De Groot (1991)]
		• T-cells from RT immunized mice have enhanced proliferative response with peptide			

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Location	WEAU	Sequence	Immunogen	Species(HLA)	References
Pro(144-158 BRU)	RT(299-313)	YQYNVLPQGWKGSPA	RT	murine(H-2 ^{H4})	[De Groot (1991)]
		• T-cells from RT immunized mice have enhanced proliferative response with peptide			
RT(p66 IIIB)	RT(350-364)	IGQHRTKIEELRQHL	Protein priming <i>in vitro</i>	human(unk)	[Manca (1995b)]
		• Protein priming induced T-cells that recognize peptide			
RT(351-370)	RT(351-370)	GQHRTKIEELRQHLLRWGLT	Protein priming <i>in vitro</i>	human(unk)	[Manca (1995a)]
		• Protein priming induced T-cells that recognize peptide, 4 clones from a single donor recognized this peptide			
RT(p66 IIIB)	RT(404-418)	KDSWTVNDIQKLVVGK	Peptide priming <i>in vitro</i>	human(unk)	[Manca (1995b)]
		• Peptide stimulation of PBMC from non-infected individuals <i>in vitro</i>			
		• Peptide priming did not induce T-cells that recognize whole protein			
RT(p66 250-260)	RT(406-416)	SSTVNDIQKLV	p66-APC protein priming <i>in vitro</i>	human (DR5(11.01))	[Manca (1996)]
		• This peptide was the minimal stimulatory sequence			
		• One Th line was stimulated by p66, one by a Glutathione-S-transferase (GST)-peptide fusion protein			
		• Constructs linking GST to the KDSSTVNDIQKLVVGK peptide at the N-term end of GST stimulated Th cells, constructs linking at the C-term end did not			
		• The C and N termini of GST are not intrinsically permissive or non-permissive, presentation is epitope specific (see FAILKCNNIK for contrast)			
RT(248-256 HXB2)	?	?	p66 <i>in vitro</i>	human(DR5)	[Manca (1995b)]
		• CD4+ T-cell lines from uninfected individuals by stimulation with p66-pulsed APC			
		• TcR V β D β sequences were obtained from p66-specific T-cell clones			
		• Responses to peptides throughout p66, but because of uncertain locations; we are not mapping them			
		– a response to peptide 248-256 was associated with DR5			

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Location	WEAU	Sequence	Immunogen	Species(HLA)	References
RT(p66 IIIB)	RT(413-427)	QKIQWGKLNWASQIYP	Peptide priming <i>in vitro</i>	human(unk)	[Manca (1995b)]
	• Peptide stimulation of PBMC from non-infected individuals <i>in vitro</i>				
	• Peptide priming did not induce T-cells that recognize whole protein				
RT(p66 IIIB)	RT(431-445)	WRQLCKLRLGTTKALT	Protein priming <i>in vitro</i>	human(unk)	[Manca (1995b)]
	• Protein priming induced T-cells that recognize peptide				
RT(p66 IIIB)	RT(440-454)	GTKALTEVIPILTEEA	Protein priming <i>in vitro</i>	human(unk)	[Manca (1995b)]
	• Protein priming induced T-cells that recognize peptide				
RT(p66 IIIB)	RT(449-463)	PLTEEAELLAENRE	Protein priming <i>in vitro</i>	human(unk)	[Manca (1995b)]
	• Protein priming induced T-cells that recognize peptide				
RT(p66 IIIB)	RT(458-472)	LAENREILKEPVHGV	Protein priming <i>in vitro</i>	human(unk)	[Manca (1995b)]
	• Protein priming induced T-cells that recognize peptide				
RT(p66 IIIB)	RT(539-553)	GKTPKFKLPIQKETW	Protein priming <i>in vitro</i>	human(unk)	[Manca (1995b)]
	• Protein priming induced T-cells that recognize peptide				
RT(p66 IIIB)	RT(584-598)	LEKEPIVGAAETFYVD	Protein priming <i>in vitro</i>	human(unk)	[Manca (1995b)]
	• Protein priming induced T-cells that recognize peptide				

Location	WEAU	Sequence	Immunogen	Species(HLA)	References
RT(528-543 BRU)	RT(683-698)	KEKVVLA WVPAHKKGIG	peptide • T-cells from peptide-primed mice could be restimulated by native RT	murine(H-2 ^{f,k,d})	[Haas (1991)]
RT(720-730 LAI)	RT(708-718)	SAGIRKVLFLD?	HIV infection • Stimulates T-cell proliferation in HIV-infected donors	human(unk)	[Schrier (1989)]
IN(899-913 LAI)	RT(887-901)	LKTA VQMAVFIHHNFK?	HIV infection • Stimulates T-cell proliferation in HIV-infected donors	human(unk)	[Schrier (1989)]
IN(923-937 LAI)	RT(911-925)	AGERIVDIATDIQT?	HIV infection • Stimulates T-cell proliferation in HIV-infected donors	human(unk)	[Schrier (1989)]
IN(942-954 LAI)	RT(930-942)	KQIT KIQNF R VYY?	HIV infection • Stimulates T-cell proliferation in HIV-infected donors	human(unk)	[Schrier (1989)]